

111601
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: June 3, 1980

SUBJECT: Review of additional Goal avian reproduction data
received by EPA 3 March 1980

FROM: Fish and Wildlife Biologist

TO: Robert Taylor, Product Manager, Team #25

THRU: David Coppage, Head, Section #3, EEB, HED

THRU: Clayton Bushong, Chief, Ecological Effects Branch

Avian reproduction studies with Goal (oxyfluorfen) were first reviewed by the Ecological Effects Branch, 16 March 1979. The raw, pen data were found to be lacking. The research laboratory, Hazleton, submitted additional data thru the registrant, Rohm and Haas. The additional data arrived at EPA 3 March 1980. The additional data together with the earlier EEB review show that the avian reproduction studies are inconclusive and will have to be repeated for the following reasons:

1. In neither the mallard nor the bobwhite tests were replicate observations concerning food consumption and viability of hatchlings kept separated. Lumping the replicates made an analysis of the sensitivity of the comparative tests for these two parameters impossible.
2. Many of the observations for the quail control pens indicated that these birds might have less reproductive potential than normal. For example, over 20 percent of the eggs cracked in control pens five and six. Only nine of the original 81 eggs in control pen six survived to the 21-day old embryo stage.
3. The 25 June 1975 and 10 July 1978 guidelines require, at a minimum, two male, and five female mallards per pen. The Goal mallard test was conducted with only one male for every five female ducks.

In addition, in the future the registrant should include the following information in the methods sections of avian reproduction study reports:

1. The carrier vehicle used to distribute the toxicant in the food mixture.
2. Measurements of the light intensity at "bird level" (Variable light intensity might partially explain the highly variable observations from the Goal quail study).

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